

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 **Claim 1 (original):** A pressure sensor comprising
2 pressure sensing means for detecting a deformation due to
3 an external force and a sensor accommodation body which is
4 made from a thermoplastic elastomer and which covers an
5 outside of the pressure sensing means, wherein at least one
6 end portion of the sensor accommodation body is sealed off
7 through a thermal treatment.

1 **Claim 2 (original):** A pressure sensor as set forth in
2 Claim 1, wherein the pressure sensing means comprises a
3 plurality of electrodes which an output signal generated
4 due to deformation is made to leave and a resistor provided
5 portion where a resistor for detecting a disconnection or
6 short-circuit of the electrode is provided, and wherein the
7 resistor provided portion is fixedly sealed off through a
8 thermal treatment at the one end portion of the sensor
9 accommodation body.

1 **Claim 3 (original):** A pressure sensor as set forth in
2 Claim 2, wherein the resistor provided portion includes at
3 least one of a recessed portion, a raised portion and a

4 wedge-shaped portion which function to enhance the fixing
5 strength of the resistor provided portion when sealing off
6 the end portion of the sensor accommodation body.

1 **Claim 4 (original):** A pressure sensor as set forth in
2 Claim 2, wherein the resistor provided portion comprises an
3 insertion hole into which a pin is inserted for enhancing
4 the fixing strength to the sensor accommodation body.

1 **Claim 5 (currently amended):** A pressure sensor as set
2 forth in ~~any of Claims 1 to 4~~claim 1, wherein at least one
3 end portion of the pressure sensing means is covered by a
4 cap made from a thermoplastic elastomer, and wherein the
5 cap seals off the end portion of the sensor accommodation
6 body.

1 **Claim 6 (currently amended):** A pressure sensor as set
2 forth in ~~any of Claims 1 to 5~~claim 1, wherein the sensor
3 accommodation body is support means for the pressure
4 sensing means which is secured to a side where the sensor
5 is mounted and fixed, wherein the support means comprises
6 a hollow portion which enhances the deformation of the
7 pressure sensing means when an external force is applied,
8 and wherein the hollow portion is sealed off through a
9 thermal treatment at at least one end portion of the
10 support means.

1 **Claim 7 (currently amended):** A pressure sensor as set
2 forth in ~~any of Claims 1 to 5~~claim 1, wherein the sensor
3 accommodation body comprises support means which is
4 covering means for covering the pressure sensing means,
5 which incorporates therein the pressure sensing means
6 covered by the covering means and which is secured to a
7 side where the sensor is mounted and fixed, wherein the
8 support means comprises a hollow portion which enhances the
9 deformation of the pressure sensing means when an external
10 force is applied, and wherein the hollow portion is sealed
11 off through a thermal treatment at at least one end portion
12 of the support means.

1 **Claim 8 (original):** A pressure sensor as set forth in
2 Claim 7, wherein the whole of at least one end portion of
3 the support means is covered by a cap made from a
4 thermoplastic elastomer, and wherein the cap seals off the
5 end portion when subjected to a thermal treatment.

1 **Claim 9 (currently amended):** A pressure sensor as set
2 forth in ~~any of Claims 1 to 8~~claim 1, wherein the pressure
3 sensing means is formed using a composite piezoelectric
4 material resulting from a mixture of chlorinated
5 polyethylene and piezoelectric ceramic powder.

1 **Claim 10 (original):** A pressure sensor comprising
2 pressure sensing means for detecting a deformation due to
3 an external force and a sensor accommodation body which
4 covers an outside of the pressure sensing means, wherein a
5 lubricant is loaded between the pressure sensing means and
6 the sensor accommodation body.

1 **Claim 11 (original):** A pressure sensor as set forth
2 in Claim 10, wherein at least one end portion of the sensor
3 accommodation body is sealed off through a thermal
4 treatment.

1 **Claim 12 (currently amended):** An object detecting
2 system comprising the pressure sensor set forth in ~~any of~~
3 ~~claims 1 to 11~~claim 1 and determination means for
4 determining on the contact of an object based on an output
5 signal of the pressure sensor.

1 **Claim 13 (original):** An object detecting system as
2 set forth in Claim 12, wherein the determination means is
3 fixedly sealed off through a thermal treatment at one end
4 portion of support means.

1 **Claim 14 (currently amended):** An opening and closing
2 system comprising the object detecting system set forth in
3 Claim 12 ~~or 13~~, driving means for driving an opening and

4 closing portion and control means for controlling the
5 driving means in such a manner as to stop a closing
6 operation of the opening and closing portion or to operate
7 the opening and closing portion to be opened when
8 determination means determines on the contact of an object
9 with a pressure sensor when the opening and closing portion
10 is operated to be closed.

1 **Claim 15 (original):** A pressure sensor fabricating
2 method comprising pressure sensing means for detecting a
3 deformation due to an external force and a sensor
4 accommodation body which covers an outside of the pressure
5 sensing means, the pressure sensor fabricating method
6 including the steps of making a lubricant adhere to at
7 least either a surface of the pressure sensing means or an
8 internal surface of the sensor accommodation body and
9 inserting the pressure sensing means into the interior
10 surface of the sensor accommodation body.

1 **Claim 16 (original):** A pressure sensor fabricating
2 method as set forth in Claim 15, wherein at least one end
3 portion of the sensor accommodation body is sealed off
4 through a thermal treatment after the insertion of the
5 pressure sensing means into the sensor accommodation body.

1 **Claim 17 (currently amended):** A pressure sensor

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2 fabricating method as set forth in Claim 15-~~or~~¹⁶, wherein
3 either zinc stearate or calcium carbonate is used as the
4 lubricant.